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June 9, 2010

Scott Lennon  
Real Estate Manager-North America  
Ritchie Brothers Properties  
9500 Glen Lyon Parkway  
Burnaby, BC Canada V5J 0C6

Cc: Stephen Bullock, Mulvanny G2 Architecture

Subject: Ritchie Brothers Auctioneers; Lewis County, Washington  
Level I Transportation Impact Analysis

Dear Mr. Lennon,

The purpose of this letter is to provide to you with a Level I - Transportation Impact Analysis for the development of the Ritchie Brothers Auctioneers site within unincorporated Lewis County, Washington. This letter includes a description of the proposed project, overview of existing conditions, a trip generation forecast, project generated traffic distribution and travel assignment, and our conclusions and recommendations. This report meets the requirements of a Level 1 Traffic Impact Analysis as defined by Lewis County.

#### **PROPOSED DEVELOPMENT DESCRIPTION**

Ritchie Brothers Auctioneers is a global auctioneering company that primarily deals with the sale of industrial equipment. The company is proposing to develop a new 203 +/- acre site south of the City of Napavine. A vicinity map highlighting the site location is attached. Primary site access is located off W Avery Road and secondary access (emergency/limited) is proposed off N Military Road. The site access will be designed to meet Lewis County's rural commercial design standard.

Based on the current site plan, see attached, the net developable area of the property is 123 +/- acres. The site will include an approximately 31,000 square foot structure which will host the auction events and house much of the equipment. Typical daily site operations will be run out of office space totaling between 6,000 and 8,000 square feet in size. Office hours are between 8:00 AM and 6:00 PM Monday through Friday.

Currently, Ritchie Brothers Auctioneers operates a site in Olympia, Washington. The proposed auction site is anticipated to replace the existing Olympia site by 2011.

It is anticipated that this site will hold between 5 and 8 auctions annually. Pre-event activities may begin 2 to 4 weeks prior to an auction as equipment is delivered and setup. Post-event activities may last 2 to 3 weeks after the auction concludes and includes the shipping of equipment and site clean-up. It is noted that a small portion of site activity during the periods prior, during, and after each auction event will include moving of heavy equipment to and from the site.

Auctions days at this site are anticipated to draw between 1,000 and 1,500 attendees. Based on information from your webpage we understand that bidders are able to review auction equipment/items prior to auction day and are also able to bid on items online and in real-time. Auction-day hours will be between 7:00 AM and dusk (5:00 PM), last between 1 and 4 days, and are not anticipated to extend into the weekends.

## EXISTING CONDITIONS

Limits of Traffic Study: **Koontz Road**, to the north, **N Military Road**, to the west, **W Avery Road**, to the south, and **Interstate 5**, to the east of the site. Primary project activity is anticipated to and from the Interstate 5 northbound and southbound interchange ramps with W Avery Road.

Existing Zoning: Rural Development District - 10

Existing Land Uses: Managed farm/pasture land

Area Roadway System: **Koontz Road** – 2 lane road with a 40 mph posted speed limit east of N Military Road and 35 mph posted speed limit west of N Military Road.  
**N Military Road** – 2 lane road with a 40 mph speed limit and 0-2 foot wide shoulders.  
**W Avery Road** – 2 lane road with a 45 mph posted speed limit and generally 2-3 foot wide shoulders which gradually widen as they approach Interstate 5.  
**Interstate 5** – 2 lanes in each direction and a 70 mph posted speed limit.

Transit Service: There is no transit service to this site.

Pedestrian/  
Bicycle Facilities: Roadways include paved and gravel shoulders varying from 0 to 6 feet in width.

## TRIP GENERATION

As indicated earlier in this letter, the office space will be the only land use that will generate traffic on a typical weekday. Trip generation for the office space is derived from data from the Institute of Transportation Engineers (ITE) publication *Trip Generation, 8<sup>th</sup> Edition: An ITE Informational Report* (2008). Land use 710, "General Office Building," was used to describe the proposed 8,000 square foot office building. Table 1 summarizes the trip generation forecast for the site.

TABLE 1: OFFICE USE TRIP GENERATION

	Trips per 1,000 SF	Inbound Trips	Outbound Trips	Total Trips Generated
AM Peak Hour	1.55	11	1	12
PM Peak Hour	1.49	2	10	12

The type of auction proposed is unique to Ritchie Brothers Auctioneers and thus, trip generation for auctions on the site are derived from past trip generation studies for other Ritchie Brothers Auctioneers sites across the county and in Canada. Table 2 summarizes the trip generation forecast for an auction event, based on information provided by Ritchie Brothers Auctioneers management.

TABLE 2: AUCTION-EVENT TRIP GENERATION

	Inbound Trips	Outbound Trips	Total Trips Generated	Trips per Attendee *
AM Peak Hour	270	30	300	0.20
PM Peak Hour	30	270	300	0.20

\* Calculated by dividing the total number of trip generated by 1,500 attendees

Based on the anticipated 5 to 8 auction events per year, auction event conditions could occur on a minimum of 5 and maximum of 32 days per year. While activity during pre-event and post-event periods may slightly add to the typical daily traffic volumes in the vicinity of the site, they are not expected to generate nearly the amount of traffic projected during an auction event. Each auction-event should be treated as a "special-event" with limited out of the normal daily activity occurring at the project site.

An increase in the amount of heavy vehicle activity should also be expected in conjunction with each auction. Heavy vehicle trip forecasts are based on Ritchie Brothers Auctioneers statistics, which are attached. The statistics shows that for a site of this size and an activity cycle of 6 weeks (pre-event, event and post event) heavy vehicle rates generated by the site would range between 0.72 heavy vehicles per hour, approximately 4 weeks prior to a large auction event, and 10.02 heavy vehicles per hour, during the week of the event. Thus, the data suggests that in addition to the auction-event trip generation (Table 2), 10 heavy vehicles may also be traveling in and out of the project entrance during the AM and PM peak hours.

### TRIP DISTRIBUTION AND TRAVEL ASSIGNMENT

The distribution and assignment of peak hour trips to and from the project site are based on observations of traffic patterns and the location of primary site access corridors. Typical and auction-day peak hour trip distribution and assignment graphics are attached and conclude the following:

- On typical weekdays at the site access 65% of the site generated traffic is anticipated to travel east toward Interstate 5, while 35% of the remaining traffic will head west toward Napavine, Winlock and Highway 12. Travel at the Interstate 5 interchanges with W Avery Road is forecast to be 30% toward Olympia and 30% toward Portland.
- On auction-days at the site access 85% of the auction attendees are anticipated to travel east toward Interstate 5, while 15% of the remaining traffic will head west toward Napavine and Winlock. Travel at the Interstate 5 northbound and southbound interchanges with W Avery Road is forecast to be 60% toward Olympia and 25% toward Portland.
- On auction-days at the site access 100% of the truck traffic is anticipated to travel east toward Interstate 5. Travel at the Interstate 5 northbound and southbound interchanges with W Avery Road is forecast to be 50% toward Olympia and 50% toward Portland.

## CONCLUSIONS/ RECOMMENDATIONS

The proposed Ritchie Brothers Auctioneers site is forecast to generate up to 12 peak hour trips on typical weekdays. During typical weekdays the project's impacts to the surrounding roadway network are negligible. During auction events, which can occur over 5 to 32 weekdays per year, up to 310 peak hour trips are anticipated to/from the site. Since auction event days make up, at most, 12% of the total weekdays in a year (32 auction days ÷ 260 weekdays per year), an auction event should be considered a special event, where traffic generated by the auction will be greater than typical. Since project traffic mitigation is generally focused around typical weekday operations and the typical weekday project trip generation is negligible, no project specific mitigation is warranted.

While traffic mitigation is deemed not necessary, it is recommended that you:

- Construct any required frontage improvements
- Ensure the site access satisfies the County's design standards for a rural commercial access
- Notify potential event attendees of reasonable travel routes to and from the site (assuming this is not practiced already)
- Provide attendants to help with auction event day activities and site ingress and egress maneuvers, if they should become congested.

Regards,

**Transportation Solutions, Inc.**



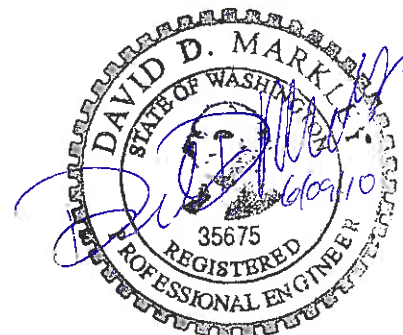
Jeffrey P. K. Hee  
Project Engineer

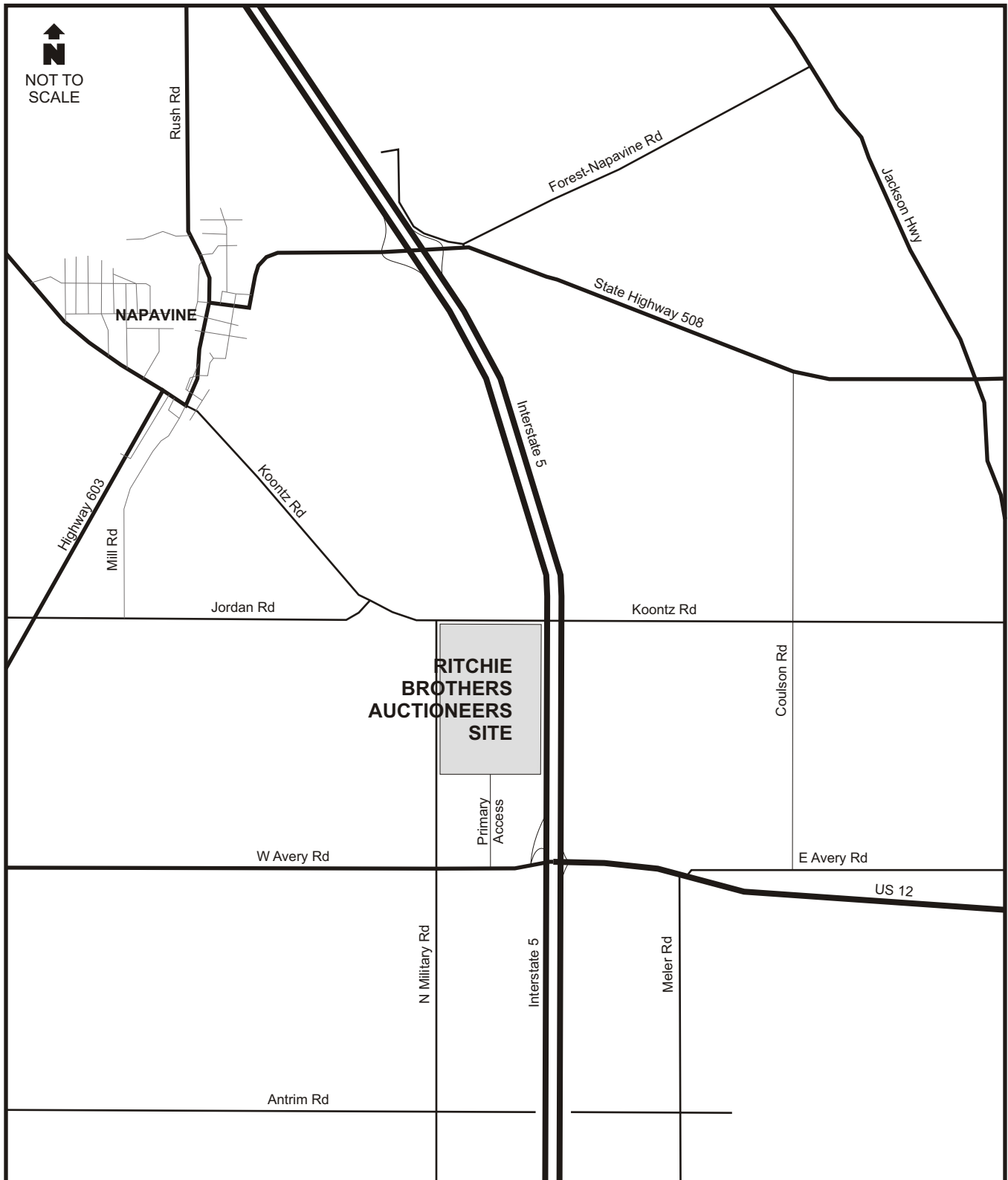


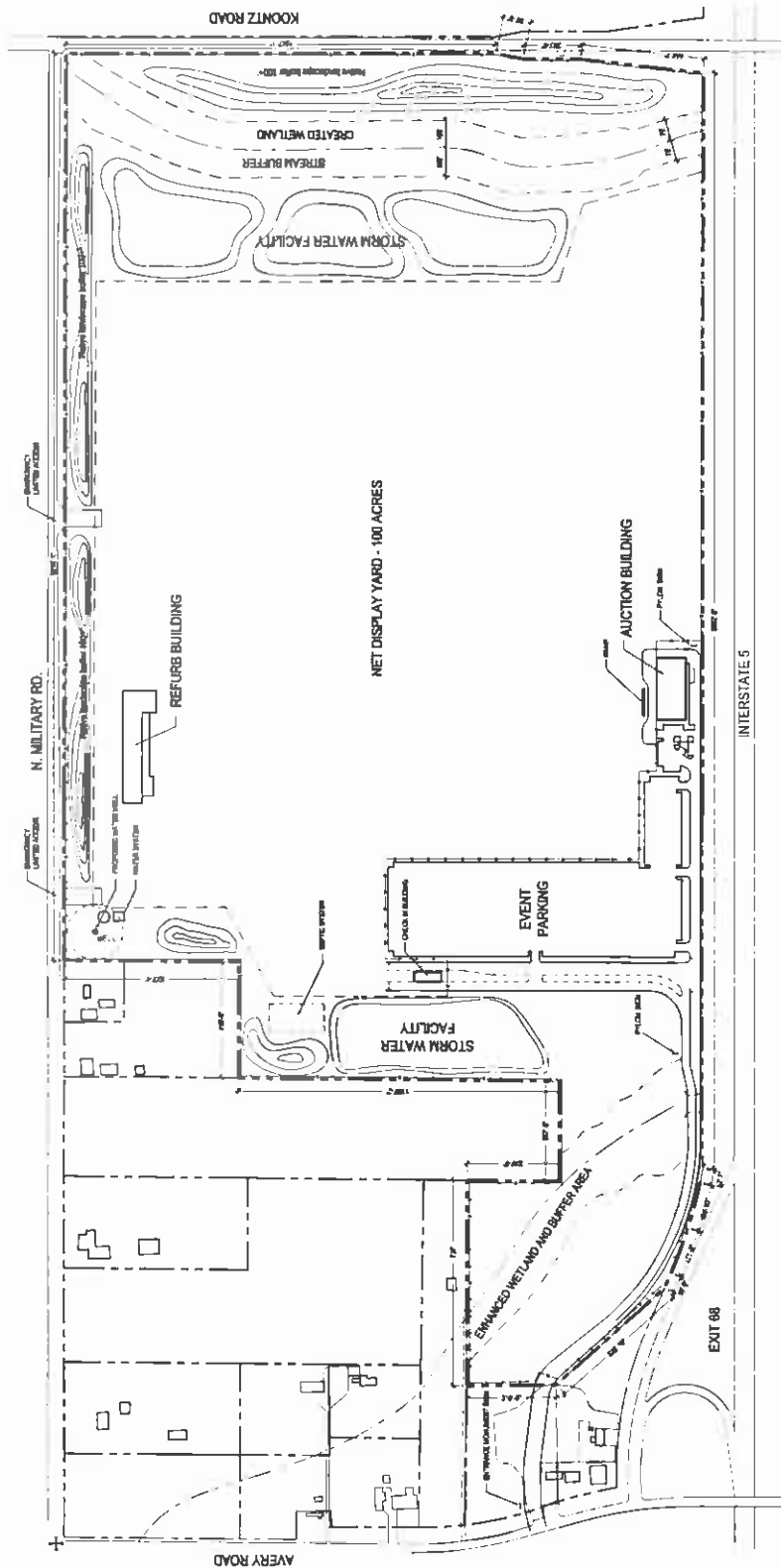
David D. Markley  
Principal Engineer

### Attachments:

Vicinity Map  
Site Plan  
Ritchie Brothers Auctioneers Heavy Vehicle Statistics  
Trip Distribution and Travel Assignment







Attachment B: ☐ Site Plan

# PROPOSED SITE PLAN

LEWIS COUNTY

RITCHIE BROS. AUCTIONEERS



0 100 200  
Feet  
0 100 200  
Meters

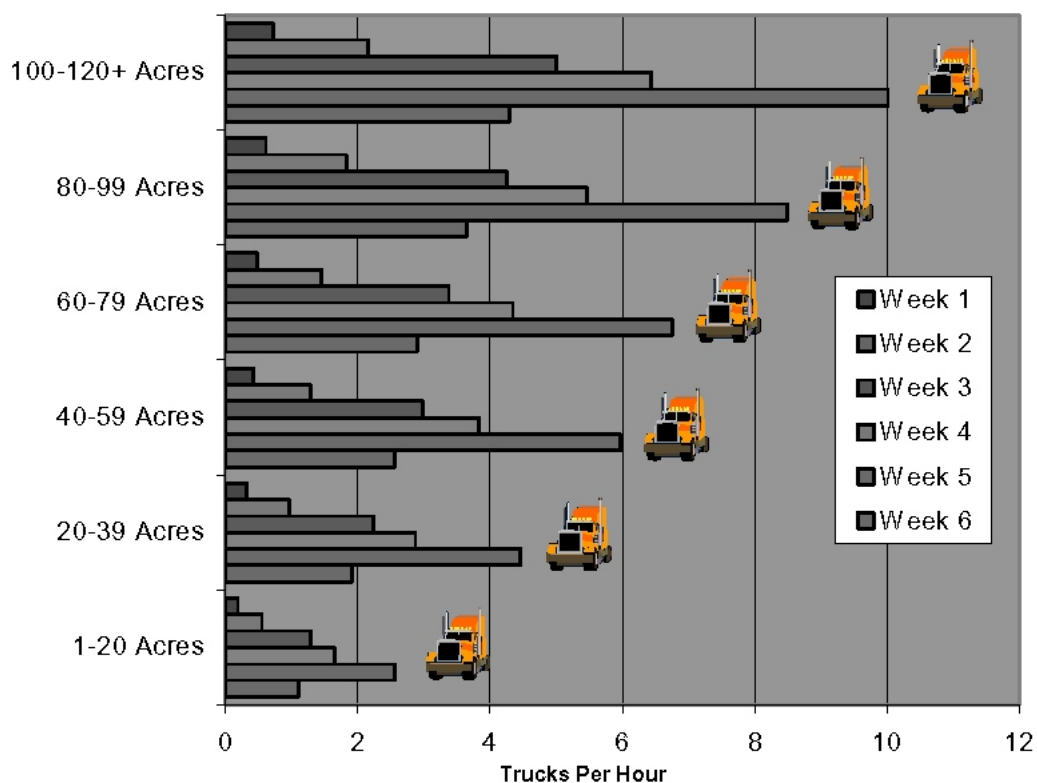
JUNE 7, 2009

MULVANNY G2

10/17/2008 10:00 AM  
10/17/2008 10:00 AM  
10/17/2008 10:00 AM

Sheet 1 of 1

## Auction Site - Expected Trucks Per Hour 6 Week Activity Cycle



**Trucks Per Week (over 6 week activity cycle)**

Site Size	1	2	3	4	5	6
1-20 Acres	7	22	51	66	103	44
20-39 Acres	13	38	89	115	179	77
40-59 Acres	17	51	119	154	239	102
60-79 Acres	19	58	135	174	270	116
80-99 Acres	24	73	169	219	340	146
100-120+ Acres	29	86	200	258	401	172

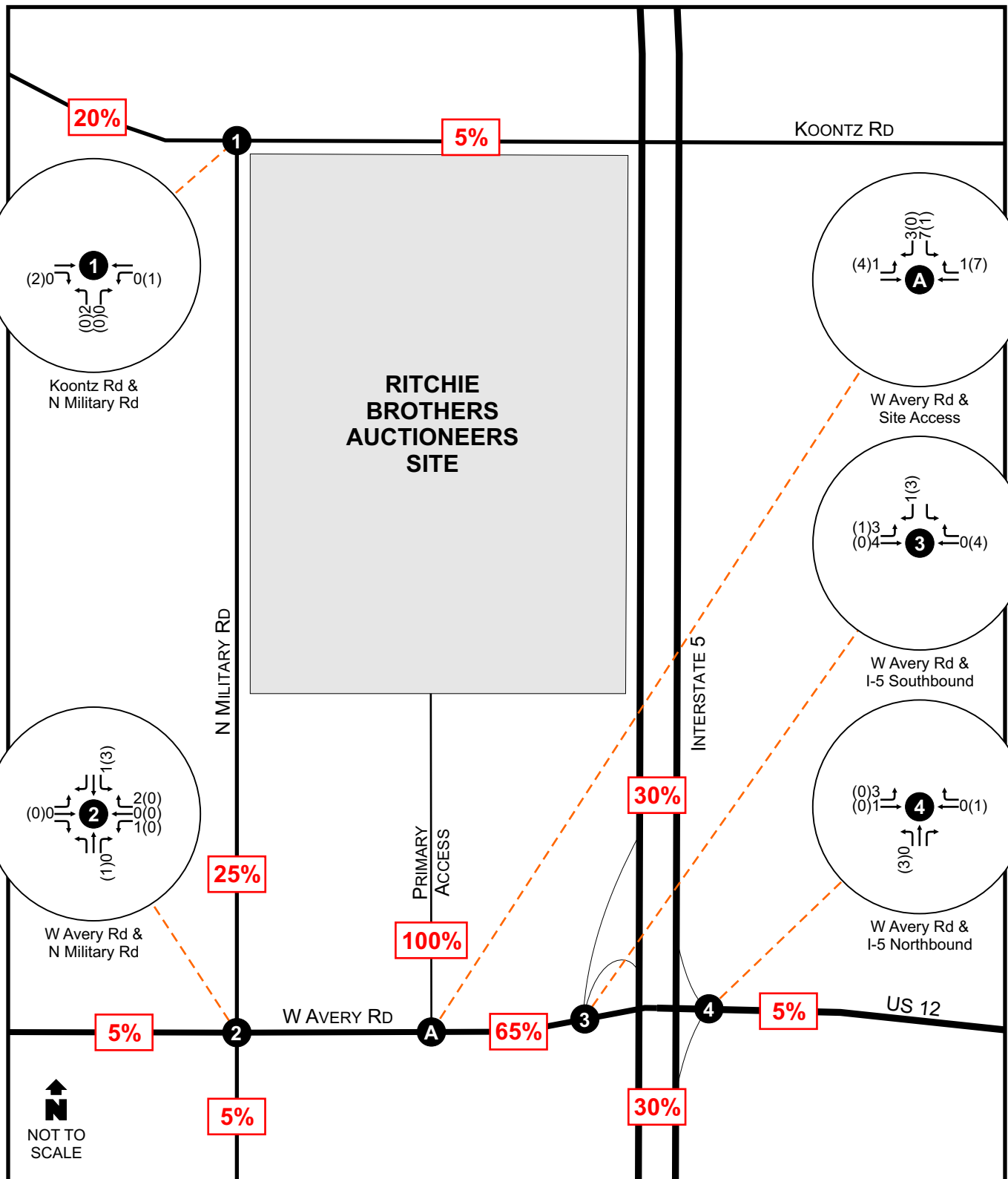
**Trucks Per Hour (over 6 week activity cycle)**

Site Size	1	2	3	4	5	6
1-20 Acres	0.18	0.55	1.28	1.65	2.57	1.1
20-39 Acres	0.32	0.96	2.23	2.89	4.46	1.91
40-59 Acres	0.43	1.28	2.99	3.84	5.97	2.56
60-79 Acres	0.48	1.44	3.38	4.34	6.76	2.9
80-99 Acres	0.61	1.82	4.24	5.46	8.5	3.64
100-120+ Acres	0.72	2.14	5.01	6.44	10.02	4.29

\*Truck trips are derived from total number of lots at existing Ritchie Bros. Auction Sites (Data Collected between 2004 and 2006);

\*\*An activity cycle occurs over a 6-week period. The 4 weeks prior to a sale trucks are delivering equipment to a site and the bulk of equipment is removed during the 2 weeks following a sale. Some truck traffic may occur outside this activity cycle;

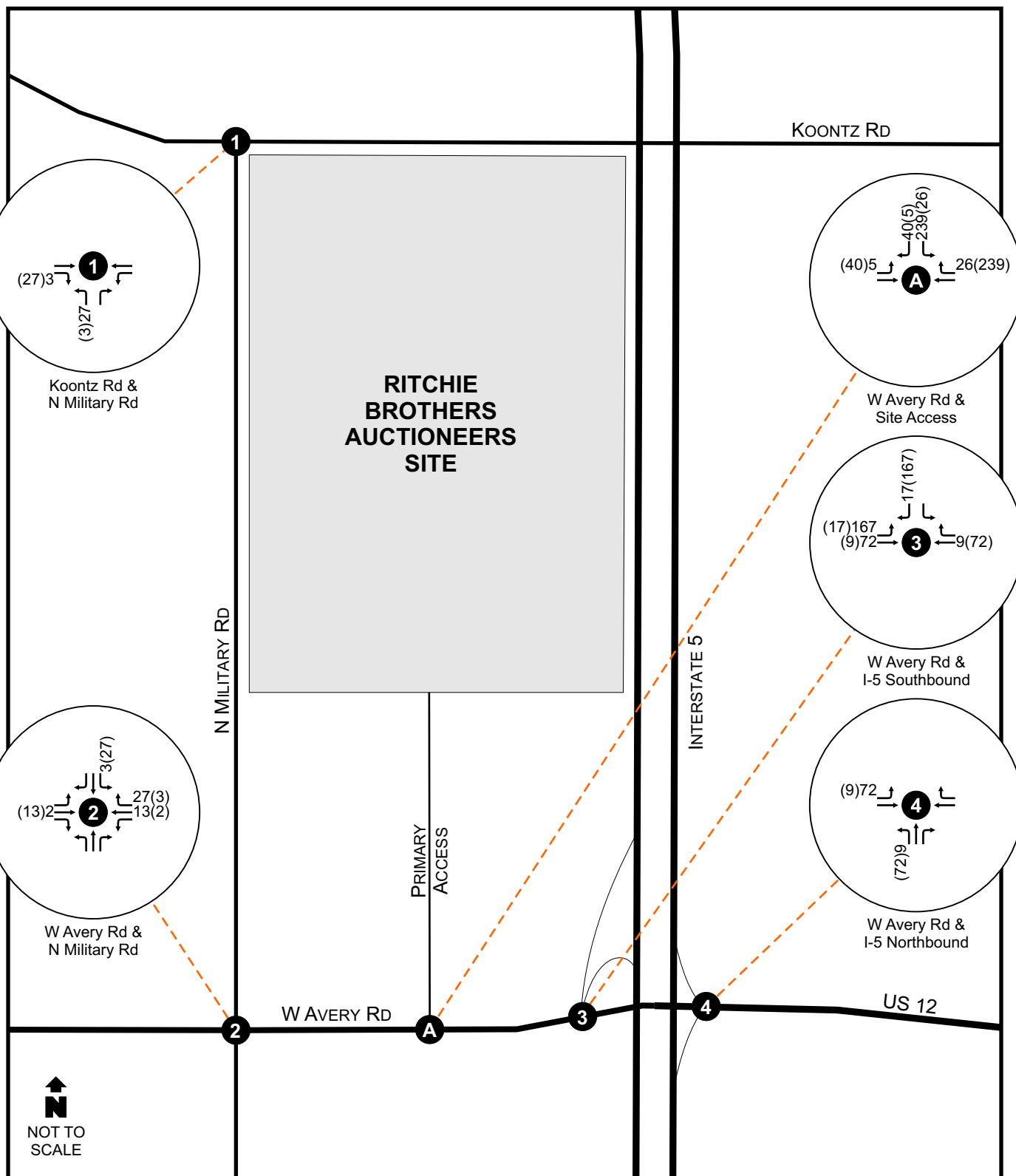
\*\*\*Truck trips numbers are approximations and are for discussion purposes only.











(#) # = (AM Peak Hour Trips) PM Peak Hour Trips